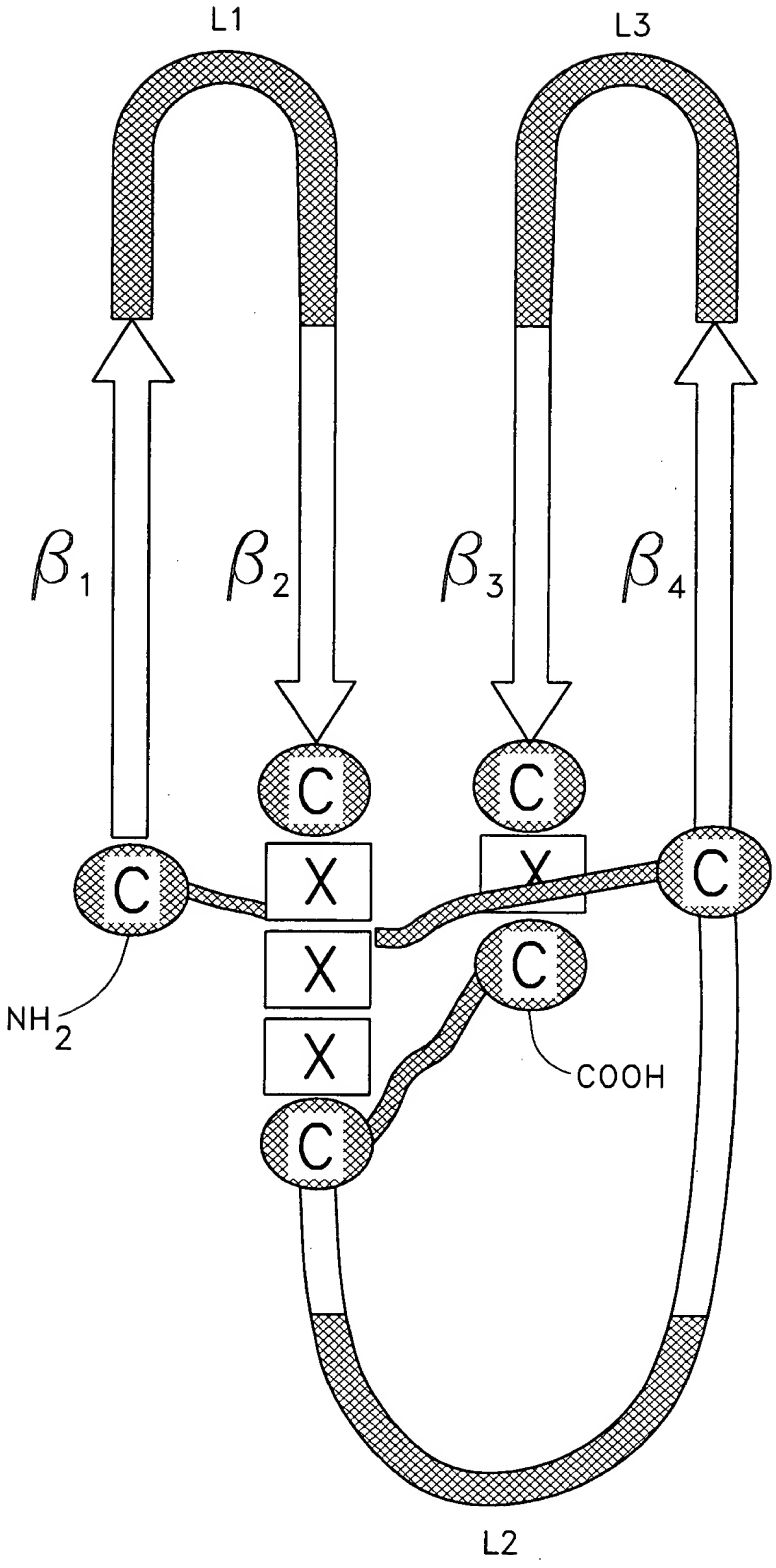

FIG. 1

FIG. 2

(SEQ ID NO: 1)

Human Glycoprotein Hormones α-Subunit

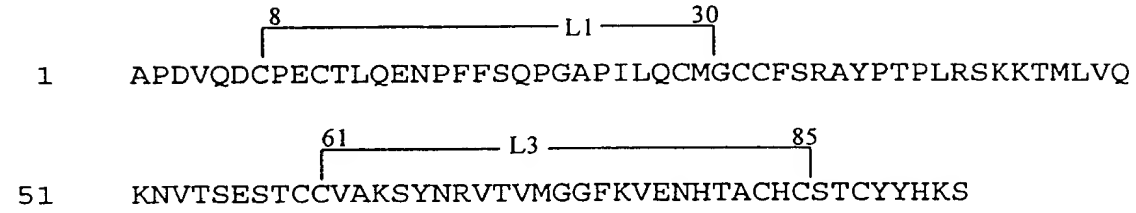

FIG. 3

(SEQ ID NO: 2)

Human Thyroid Stimulating Hormone (TSH)

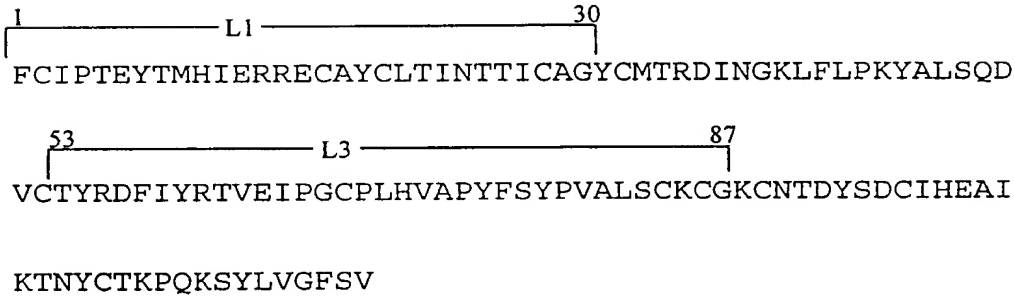

FIG. 4

(SEQ ID NO: 3)

Human Chorionic Gonadotropin (CG)

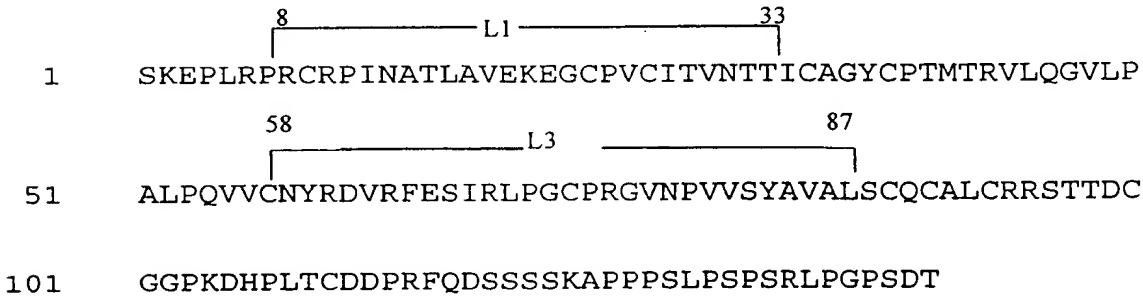

FIG. 5

(SEQ ID NO: 4)

Human Luteinizing Hormone (LH)

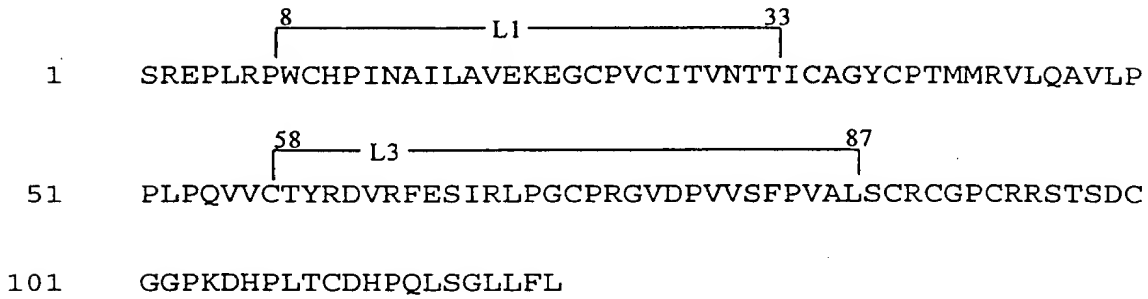

FIG. 6

(SEQ ID NO: 5)

Human Follicle Stimulating Hormone (FSH)

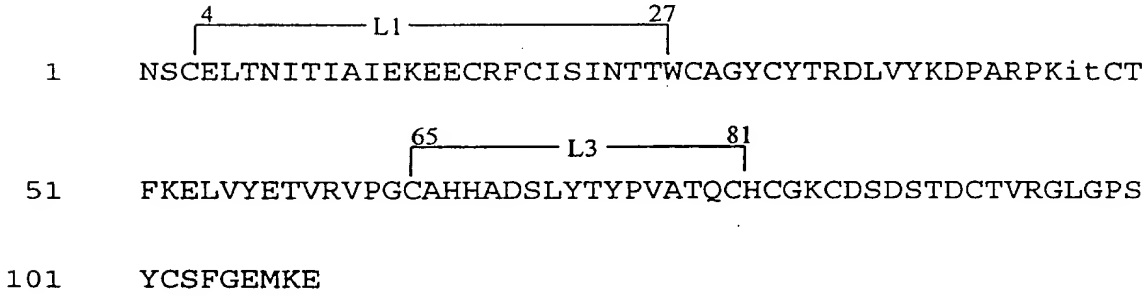

FIG. 7

(SEQ ID NO: 6)

Human Platelet-Derived Growth Factor-A (PDGF A-Chain)

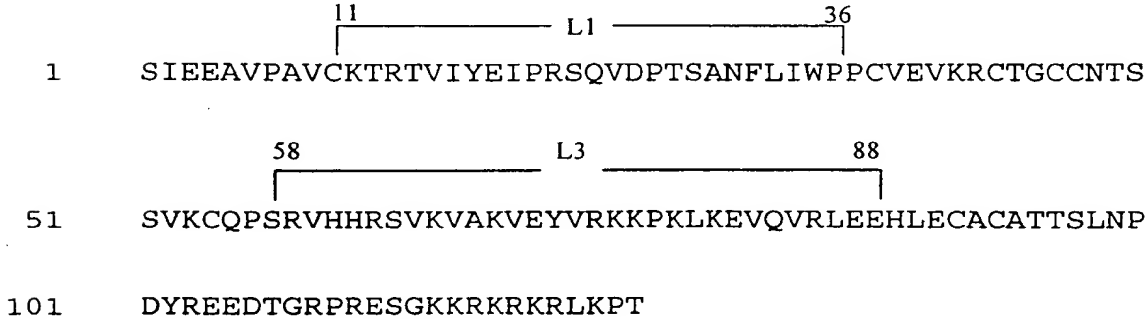

FIG. 8

(SEQ ID NO: 7)

Human Platelet-Derived Growth Factor-B (PDGF B-Chain)

17 —— L1 —— 42

1 SLGSLTIAEPAMIAECKTRTEVFEISRRLIDRTNANFLVWPPCVEVQRCS

64 —— L3 —— 94

51 GCCNNRNVQCRPTQVQLRPVQVRKIEIVRKKPIFKKATVTLEDHLACKCE

101 TVAAARPVTRSPGGSQEQRAKTPQTRVTIRTVRVRRPPKGKHRKFKHTHD

151 KTALKETLGA

FIG. 9

(SEQ ID NO: 8)

Human Vascular Endothelial Growth Factor

27 —— L1 —— 50

1 APMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEYIFKPS

73 —— L3 —— 99

51 CVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHN

101 KCECRPKKDRARQEKKSVRGKGKGQKRKRKKSRYKSWSVPCGPCSERRKH

151 LFVQDPQTCKCSCKNTDSRCKARQLELNERTCRCDKPRR

FIG. 10

(SEQ ID NO: 9)

Human Nerve Growth Factor

16 —— L1 ——

1 SSSHPIFHRGEFSVCDSVSVWVGDKTTATDIKGKEVMVLGEVNNINSVFK

—— 57 81 —— L3 ——

51 QYFFETKCRDPNPVDSGCRGIDSKHWNSYCTTTHTFVKAMLTDGKQAAWR

—— 107

101 FIRIDTACVCVLSRKAVRRA

FIG. 11

(SEQ ID NO: 10)

Human Brain Derived Neurotrophic Factor

14 —— L1 ——

1 HSDPARRGELSVCDSISEWVTAADKKTAVDMSGGTVTVLEKVSPVKGQLK

—— 57 81 —— L3 ——

51 QYFYETKCNPMGYTKEGCRGIDKRHWNSQCRTTQSYVRAMLTDSKKRIGW

—— 108

101 RFIRIDTSCVCILTIKRGR

FIG. 12

(SEQ ID NO: 11)

Human Neurotrophin (NT)-3

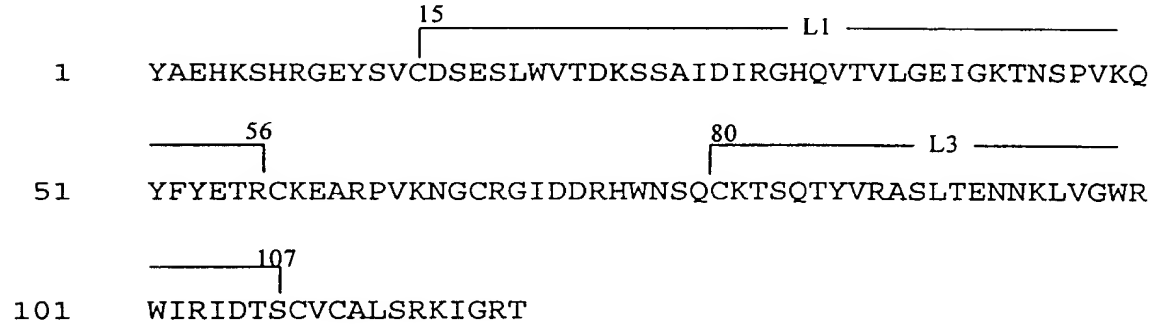

FIG. 13

(SEQ ID NO: 12)

Human Neurotrophin (NT)-4

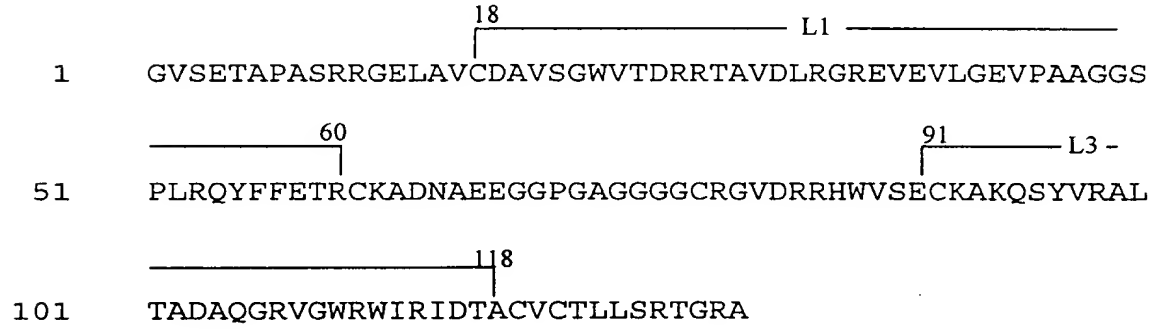

FIG. 14

(SEQ ID NO: 13)

Human Transforming Growth Factor (TGF)-β1

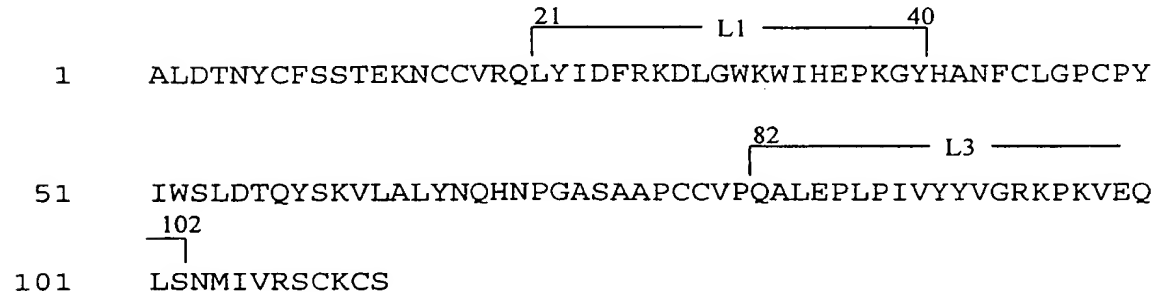

FIG. 15

(SEQ ID NO: 14)

Human Transforming Growth Factor (TGF)-β2

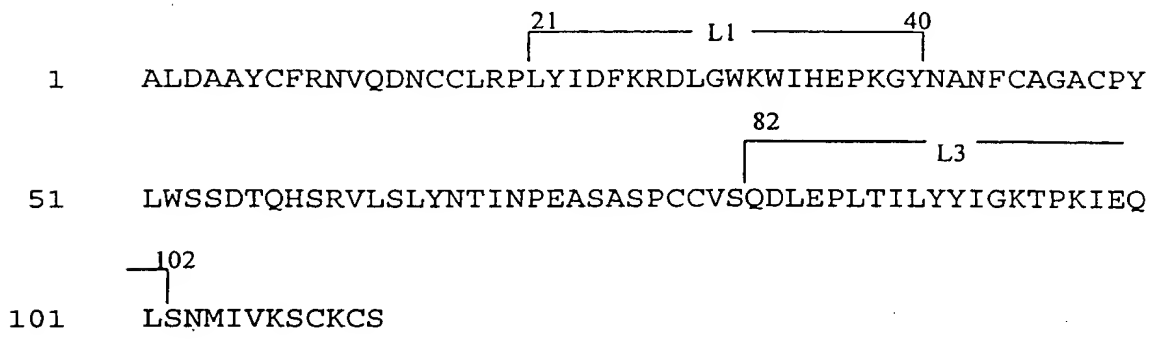

FIG. 16

(SEQ ID NO: 15)

Human Transforming Growth Factor (TGF)-β3

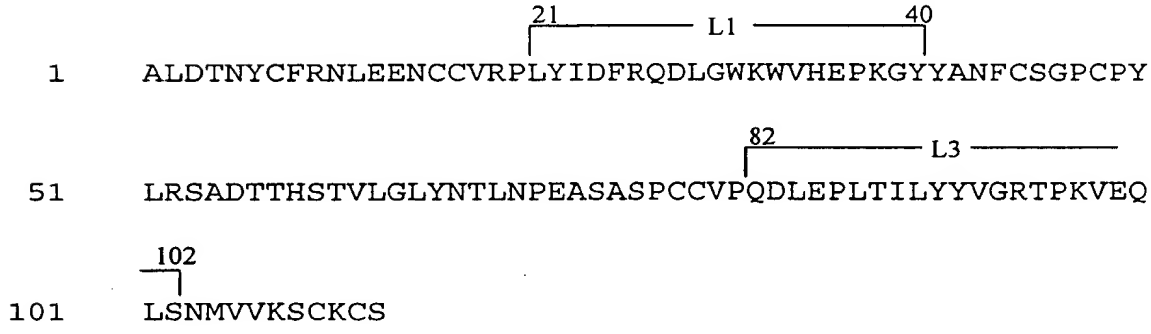

FIG. 17

(SEQ ID NO: 16)

Human Transforming Growth Factor (TGF)-β4

```
1    MWPLWLCWAL WVLPLAGPGA ALTEEQLLAS LLRQLQLSEV PVLDRADMEK
51   LVIPAHVRAQ YVVLLRRDGD RSRGKRFSQS FREVAGRFLA SEASTHLLVF
101  GMEQRLPPNS ELVQAVLRLF QEPVPQGALH RHGRLSPAAP KARVTVEWLV
151  RDDGSNRTSL IDSRLVSVHE SGWKAFDVTE AVNFWQQLSR PPEPLLVQVS
201  VQREHLGPLA SGAHKLVRFA SQGAPAGLGE PQLELHTLDL RDYGAQGDCD
251  PEAPMTEGTR CCRQEMYIDL QGMKWAKNWV LEPPGFLAYE CVGTCQQPPE
301  ALAFNWPFLG PRQCIASETA SLPMIVSIKE GGRTRPQVVS LPNMRVQKCS
351  CASDGALVPR RLQHRPWCIH
```

FIG. 18

(SEQ ID NO: 17)

Human Neurturin

```
1    MQRWKAAALA SVLCSSVLSI WMCREGLLLS HRLGPALVPL HRLPRTLDAR
51   IARLAQYRAL LQGAPDAMEL RELTPWAGRP PGPRRRAGPR RRRARARLGA
101  RPCGLRELEV RVSELGLGYA SDETVLFRYC AGACEAAARV YDLGLRRLRQ
151  RRRLRRERVR AQPCCRPTAY EDEVSFLDAH SRYHTVHELS ARECACV
```

FIG. 19

(SEQ ID NO: 18)

Human Inhibin α
(Common to Inhibin A and Inhibin B)

```
  1  MVLHLLLFLL LTPQGGHSCQ GLELARELVL AKVRALFLDA LGPPAVTREG
 51  GDPGVRRLPR RHALGGFTHR GSEPEEEEDV SQAILFPATD ASCEDKSAAR
101  GLAQEAEEGL FRYMFRPSQH TRSRQVTSAQ LWFHTGLDRQ GTAASNSSEP
151  LLGLLALSPG GPVAVPMSLG HAPPHWAVLH LATSALSLLT HPVLVLLLRC
201  PLCTCSARPE ATPFLVAHTR TRPPSGGERA RRSTPLMSWP WSPSALRLLQ
251  RPPEEPAAHA NCHRVALNIS FQELGWERWI VYPPSFIFHY CHGGCGLHIP
301  PNLSLPVPGA PPTPAQPYSL LPGAQPCCAA LPGTMRPLHV RTTSDGGYSF
351  KYETVPNLLT QHCACI
```

FIG. 20

(SEQ ID NO: 19)

Human Inhibin A - β Subunit (α–βA Heterodimer)

```
  1  MPLLWLRGFL LASCWIIVRS SPTPGSEGHS AAPDCPSCAL AALPKDVPNS
 51  QPEMVEAVKK HILNMLHLKK RPDVTQPVPK AALLNAIRKL HVGKVGENGY
101  VEIEDDIGRR AEMNELMEQT SEIITFAESG TARKTLHFEI SKEGSDLSVV
151  ERAEVWLFLK VPKANRTRTK VTIRLFQQQK HPQGSLDTGE EAEEVGLKGE
201  RSELLLSEKV VDARKSTWHV FPVSSSIQRL LDQGKSSLDV RIACEQCQES
251  GASLVLLGKK KKKEEEGEGK KKGGGEGGAG ADEEKEQSHR PFLMLQARQS
301  EDHPHRRRRR GLECDGKVNI CCKKQFFVSF KDIGWNDWII APSGYHANYC
351  EGECPSHIAG TSGSSLSFHS TVINHYRMRG HSPFANLKSC CVPTKLRPMS
401  MLYYDDGQNI IKKDIQNMIV EECGCS
```

FIG. 21

(SEQ ID NO: 20)

Human Inhibin B - β Subunit (α-βB Heterodimer)

```
  1   MDGLPGRALG AACLLLLAAG WLGPEAWGSP TPPPTPAAPP PPPPPGSPGG
 51   SQDTCTSCGG FRRPEELGRV DGDFLEAVKR HILSRLQMRG RPNITHAVPK
101   AAMVTALRKL HAGKVREDGR VEIPHLDGHA SPGADGQERV SEIISFAETD
151   GLASSRVRLY FFISNEGNQN LFVVQASLWL YLKLLPYVLE KGSRRKVRVK
201   VYFQEQGHGD RWNMVEKRVD LKRSGWHTFP LTEAIQALFE RGERRLNLDV
251   QCDSCQELAV VPVFVDPGEE SHRPFVVVQA RLGDSRHRIR KRGLECDGRT
301   NLCCRQQFFI DFRLIGWNDW IIAPTGYYGN YCEGSCPAYL AGVPGSASSF
351   HTAVVNQYRM RGLNPGTVNS CCIPTKLSTM SMLYFDDEYN IVKRDVPNMI
401   VEECGCA
```

FIG. 22

(SEQ ID NO: 21)

Human Activin A (βA Homodimer)

```
  1   MPLLWLRGFL LASCWIIVRS SPTPGSEGHS AAPDCPSCAL AALPKDVPNS
 51   QPEMVEAVKK HILNMLHLKK RPDVTQPVPK AALLNAIRKL HVGKVGENGY
101   VEIEDDIGRR AEMNELMEQT SEIITFAESG TARKTLHFEI SKEGSDLSVV
151   ERAEVWLFLK VPKANRTRTK VTIRLFQQQK HPQGSLDTGE EAEEVGLKGE
201   RSELLLSEKV VDARKSTWHV FPVSSSIQRL LDQGKSSLDV RIACEQCQES
251   GASLVLLGKK KKKEEEGEGK KKGGGEGGAG ADEEKEQSHR PFLMLQARQS
301   EDHPHRRRRR GLECDGKVNI CCKKQFFVSF KDIGWNDWII APSGYHANYC
351   EGECPSHIAG TSGSSLSFHS TVINHYRMRG HSPFANLKSC CVPTKLRPMS
401   MLYYDDGQNI IKKDIQNMIV EECGCS
```

FIG. 23

(SEQ ID NO: 22)

Human Activin B (βB Homodimer)

```
  1  MDGLPGRALG AACLLLLAAG WLGPEAWGSP TPPPTPAAPP PPPPPGSPGG
 51  SQDTCTSCGG FRRPEELGRV DGDFLEAVKR HILSRLQMRG RPNITHAVPK
101  AAMVTALRKL HAGKVREDGR VEIPHLDGHA SPGADGQERV SEIISFAETD
151  GLASSRVRLY FFISNEGNQN LFVVQASLWL YLKLLPYVLE KGSRRKVRVK
201  VYFQEQGHGD RWNMVEKRVD LKRSGWHTFP LTEAIQALFE RGERRLNLDV
251  QCDSCQELAV VPVFVDPGEE SHRPFVVVQA RLGDSRHRIR KRGLECDGRT
301  NLCCRQQFFI DFRLIGWNDW IIAPTGYYGN YCEGSCPAYL AGVPGSASSF
351  HTAVVNQYRM RGLNPGTVNS CCIPTKLSTM SMLYFDDEYN IVKRDVPNMI
401  VEECGCA
```

FIG. 24

(SEQ ID NO: 23)

Human Müllerian Inhibitory Substance (MIS)

```
  1  MRDLPLTSLA LVLSALGALL GTEALRAEEP AVGTSGLIFR EDLDWPPGIP
 51  QEPLCLVALG GDSNGSSSPL RVVGALSAYE QAFLGAVQRA RWGPRDLATF
101  GVCNTGDRQA ALPSLRRLGA WLRDPGGQRL VVLHLEEVTW EPTPSLRFQE
151  PPPGGAGPPE LALLVLYPGP GPEVTVTRAG LPGAQSLCPS RDTRYLVLAV
201  DRPAGAWRGS GLALTLQPRG EDSRLSTARL QALLFGDDHR CFTRMTPALL
251  LLPRSEPAPL PAHGQLDTVP FPPPRPSAEL EESPPSADPF LETLTRLVRA
301  LRVPPARASA PRLALDPDAL AGFPQGLVNL SDPAALERLL DGEEPLLLLL
351  RPTAATTGDP APLHDPTSAP WATALARRVA AELQAAAAEL RSLPGLPPAT
401  APLLARLLAL CPGGPGGLGD PLRALLLLKA LQGLRVEWRG RDPRGPGRAQ
451  RSAGATAADG PCALRELSVD LRAERSVLIP ETYQANNCQG VCGWPQSDRN
501  PRYGNHVVLL LKMQARGAAL ARPPCCVPTA YAGKLLISLS EERISAHHVP
551  NMVATECGCR
```

FIG. 25

(SEQ ID NO: 24)

Human Bone Morphogenic Protein (BMP)-2

```
  1  MVAGTRCLLA LLLPQVLLGG AAGLVPELGR RKFAAASSGR PSSQPSDEVL
 51  SEFELRLLSM FGLKQRPTPS RDAVVPPYML DLYRRHSGQP GSPAPDHRLE
101  RAASRANTVR SFHHEESLEE LPETSGKTTR RFFFNLSSIP TEEFITSAEL
151  QVFREQMQDA LGNNSSFHHR INIYEIIKPA TANSKFPVTR LLDTRLVNQN
201  ASRWESFDVT PAVMRWTAQG HANHGFVVEV AHLEEKQGVS KRHVRISRSL
251  HQDEHSWSQI RPLLVTFGHD GKGHPLHKRE KRQAKHKQRK RLKSSCKRHP
301  LYVDFSDVGW NDWIVAPPGY HAFYCHGECP FPLADHLNST NHAIVQTLVN
351  SVNSKIPKAC CVPTELSAIS MLYLDENEKV VLKNYQDMVV EGCGCR
```

FIG. 26

(SEQ ID NO: 25)

Human Bone Morphogenic Protein (BMP)-3

```
  1  MAGASRLLFL WLGCFCVSLA QGERPKPPFP ELRKAVPGDR TAGGGPDSEL
 51  QPQDKVSEHM LRLYDRYSTV QAARTPGSLE GGSQPWRPRL LREGNTVRSF
101  RAAAAETLER KGLYIFNLTS LTKSENILSA TLYFCIGELG NISLSCPVSG
151  GCSHHAQRKH IQIDLSAWTL KFSRNQSQLL GHLSVDMAKS HRDIMSWLSK
201  DITQFLRKAK ENEEFLIGFN ITSKGRQLPK RRLPFPEPYI LVYANDAAIS
251  EPESVVSSLQ GHRNFPTGTV PKWDSHIRAA LSIERRKKRS TGVLLPLQNN
301  ELPGAEYQYK KDEVWEERKP YKTLQAQAPE KSKNKKKQRK GPHRKSQTLQ
351  FDEQTLKKAR RKQWIEPRNC ARRYLKVDFA DIGWSEWIIS PKSFDAYYCS
401  GACQFPMPKS LKPSNHATIQ SIVRAVGVVP GIPEPCCVPE KMSSLSILFF
451  DENKNVVLKV YPNMTVESCA CR
```

FIG. 27
(SEQ ID NO: 26)

Human Bone Morphogenic Protein (BMP)-3b

1 MAHVPARTSP GPGPQLLLLL LPLFLLLLRD VAGSHRAPAW SALPAAADGL

51 QGDRDLQRHP GDAAATLGPS AQDMVAVHMH RLYEKYSRQG ARPGGGNTVR

101 SFRARLEVVD QKAVYFFNLT SMQDSEMILT ATFHFYSEPP RWPRALEVLC

151 KPRAKNASGR PLPLGPPTRQ HLLFRSLSQN TATQGLLRGA MALAPPPRGL

201 WQAKDISPIV KAARRDGELL LSAQLDSEER DPGVPRPSPY APYILVYAND

251 LAISEPNSVA VTLQRYDPFP AGDPEPRAAP NNSADPRVRR AAQATGPLQD

301 NELPGLDERP PRAHAQHFHK HQLWPSPFRA LKPRPGRKDR RKKGQEVFMA

351 ASQVLDFDEK TMQKARRKQW DEPRVCSRRY LKVDFADIGW NEWIISPKSF

401 DAYYCAGACE FPMPKIVRPS NHATIQSIVR AVGIIPGIPE PCCVPDKMNS

451 LGVLFLDENR NVVLKVYPNM SVDTCACR

FIG. 28
(SEQ ID NO: 27)

Human Bone Morphogenic Protein (BMP)-4

1 MIPGNRMLMV VLLCQVLLGG ASHASLIPET GKKKVAEIQG HAGGRRSGQS

51 HELLRDFEAT LLQMFGLRRR PQPSKSAVIP DYMRDLYRLQ SGEEEEEQIH

101 STGLEYPERP ASRANTVRSF HHEEHLENIP GTSENSAFRF LFNLSSIPEN

151 EAISSAELRL FREQVDQGPD WERGFHRINI YEVMKPPAEV VPGHLITRLL

201 DTRLVHHNVT RWETFDVSPA VLRWTREKQP NYGLAIEVTH LHQTRTHQGQ

251 HVRISRSLPQ GSGNWAQLRP LLVTFGHDGR GHALTRRRRA KRSPKHHSQR

301 ARKKNKNCRR HSLYVDFSDV GWNDWIVAPP GYQAFYCHGD CPFPLADHLN

351 STNHAIVQTL VNSVNSSIPK ACCVPTELSA ISMLYLDEYD KVVLKNYQEM

401 VVEGCGCR

FIG. 29

(SEQ ID NO: 28)

Human Bone Morphogenetic Protein (BMP)-5 Precursor

```
  1   MHLTVFLLKG IVGFLWSCWV LVGYAKGGLG DNHVHSSFIY RRLRNHERRE
 51   IQREILSILG LPHRPRPFSP GKQASSAPLF MLDLYNAMTN EENPEESEYS
101   VRASLAEETR GARKGYPASP NGYPRRIQLS RTTPLTTQSP PLASLHDTNF
151   LNDADMVMSF VNLVERDKDF SHQRRHYKEF RFDLTQIPHG EAVTAAEFRI
201   YKDRSNNRFE NETIKISIYQ IIKEYTNRDA DLFLLDTRKA QALDVGWLVF
251   DITVTSNHWV INPQNNLGLQ LCAETGDGRS INVKSAGLVG RQGPQSKQPF
301   MVAFFKASEV LLRSVRAANK RKNQNRNKSS SHQDSSRMSS VGDYNTSEQK
351   QACKKHELYV SFRDLGWQDW IIAPEGYAAF YCDGECSFPL NAHMNATNHA
401   IVQTLVHLMF PDHVPKPCCA PTKLNAISVL YFDDSSNVIL KKYRNMVVRS
451   CGCH
```

FIG. 30

(SEQ ID NO: 29)

Human Bone Morphogenic Protein (BMP)-6/Vgrl

```
                21          L1                  40
  1   SSASDYNSSELKTACRKHELYVSFQDLGWqwIIAPKGYAANYCDGECSPP
                                  81          L3
 51   LNAhtNHAIVQTLVHLMNPEYVPKPCCAPTKLNAISVLYFDDNSNVikKY
      102
101   RNMVVRACGCH
```

FIG. 31

(SEQ ID NO: 30)

Human Bone Morphogenic Protein (BMP)-7/Osteogenic Protein (OP)-1

```
                           21 ------- L1 -------------- 40
1     ANVAENSSSDQRQACKKHELYVSFRDLGWQWIIAPEGYAAYYCEGECAFP

                                       81 ------------- L3 -------
51    LNSATNHAIVQTLVHFINPETVPKPCCAPTQLNAISVLYFDDSSNVIKKY

       102
101   RNMVVRACGCH
```

FIG. 32

(SEQ ID NO: 31)

Human Bone Morphogenic Protein (BMP)-8/Human Osteogenic Protein (OP)-2

```
1     MTALPGPLWL LGLALCALGG GGPGLRPPPG CPQRRLGARE RRDVQREILA

51    VLGLPGRPRP RAPPAASRLP ASAPLFMLDL YHAMAGDDDE DGAPAERRLG

101   RADLVMSFVN MVERDRALGH QEPHWKEFRF DLTQIPAGEA VTAAEFRIYK

151   VPSIHLLNRT LHVSMFQVVQ EQSNRESDLF FLDLQTLRAG DEGWLVLDVT

201   AASDCWLLKR HKDLGLRLYV ETEDGHSVDP GLAGLLGQRA PRSQQPFVVT

251   FFRASPSPIR TPRAVRPLRR RQPKKSNELP QANRLPGIFD DVHGSHGRQV

301   CRRHELYVSF QDLGWLDWVI APQGYSAYYC EGECSFPLDS CMNATNHAIL

351   QSLVHLMKPN AVPKACCAPT KLSATSVLYY DSSNNVILRK HRNMVVKACG

401   CH
```

FIG. 33

(SEQ ID NO: 32)

Human Bone Morphogenic Protein (BMP)-10

```
  1  MGSLVLTLCA LFCLAAYLVS GSPIMNLEQS PLEEDMSLFG DVFSEQDGVD
 51  FNTLLQSMKD EFLKTLNLSD IPTQDSAKVD PPEYMLELYN KFATDRTSMP
101  SANIIRSFKN EDLFSQPVSF NGLRKYPLLF NVSIPHHEEV IMAELRLYTL
151  VQRDRMIYDG VDRKITIFEV LESKGDNEGE RNMLVLVSGE IYGTNSEWET
201  FDVTDAIRRW QKSGSSTHQL EVHIESKHDE AEDASSGRLE IDTSAQNKHN
251  PLLIVFSDDQ SSDKERKEEL NEMISHEQLP ELDNLGLDSF SSGPGEEALL
301  QMRSNIIYDS TARIRRNAKG NYCKRTPLYI DFKEIGWDSW IIAPPGYEAY
351  ECRGVCNYPL AEHLTPTKHA IIQALVHLKN SQKASKACCV PTKLEPISIL
401  YLDKGVVTYK FKYEGMAVSE CGCR
```

FIG. 34

(SEQ ID NO: 33)

Human Bone Morphogenic Protein (BMP)-11

```
  1  MVLAAPLLLG FLLLALELRP RGEAAEGPAA AAAAAAAAAA AGVGGERSSR
 51  PAPSVAPEPD GCPVCVWRQH SRELRLESIK SQILSKLRLK EAPNISREVV
101  KQLLPKAPPL QQILDLHDFQ GDALQPEDFL EEDEYHATTE TVISMAQETD
151  PAVQTDGSPL CCHFHFSPKV MFTKVLKAQL WVYLRPVPRP ATVYLQILRL
201  KPLTGEGTAG GGGGGRRHIR IRSLKIELHS RSGHWQSIDF KQVLHSWFRQ
251  PQSNWGIEIN AFDPSGTDLA VTSLGPGAEG LHPFMELRVL ENTKRSRRNL
301  GLDCDEHSSE SRCCRYPLTV DFEAFGWDWI IAPKRYKANY CSGQCEYMFM
351  QKYPHTHLVQ QANPRGSAGP CCTPTKMSPI NMLYFNDKQQ IIYGKIPGMV
401  VDRCGCS
```

FIG. 35

(SEQ ID NO: 34)

I. HUMAN BONE MORPHOGENIC PROTEIN (BMP)-15

```
  1   MVLLSILRIL FLCELVLFME HRAQMAEGGQ SFIALLAEAP TLPLIEEMLE

 51   ESPGEQPRKP RLLGHSLRYM LELYRRSADS HGHPRENRTI GATMVRLVKP

101   LTSVARPHRG TWHIQILGFP LRPNRGLYQL VRATVVYRHH LQLTRFNLSC

151   HVEPWVQKNP TNHFPSSEGD SSKPSLMSNA WKEMDITQLV QQRFWNNKGH

201   RILRLRFMCQ QQKDSGGLEL WHGTSSLDIA FLLLYFNDTH KSIRKAKFLP

251   RGMEEFMERE SLLRRTRQAD GISAEVTASS SKHSGPENNQ CSLHPFQISF

301   RQLGWDHWII APPFYTPNYC KGTCLRVLRD GLNSPNHAII QNLINQLVDQ

351   SVPRPSCVPY KYVPISVLMI EANGSILYKE YEGMIAESCT CR
```

FIG. 36

(SEQ ID NO: 35)

Human Norrie Disease Protein (NDP)

[Norrin]

```
  1   MRKHVLAASF SMLSLLVIMG DTDSKTDSSF IMDSDPRRCM RHHYVDSISH

 51   PLYKCSSKMV LLARCEGHCS QASRSEPLVS FSTVLKQPFR SSCHCCRPQT

101   SKLKALRLRC SGGMRLTATY RYILSCHCEE CNS
```

FIG. 37

(SEQ ID NO: 36)

Human Growth Differentiation Factor (GDF)-1

```
1     MPPPQQGPCG HHLLLLLALL LPSLPLTRAP VPPGPAAALL QALGLRDEPQ
51    GAPRLRPVPP VMWRLFRRRD PQETRSGSRR TSPGVTLQPC HVEELGVAGN
101   IVRHIPDRGA PTRASEPVSA AGHCPEWTVV FDLSAVEPAE RPSRARLELR
151   FAAAAAAAPE GGWELSVAQA GQGAGADPGP VLLRQLVPAL GPPVRAELLG
201   AAWARNASWP RSLRLALALR PRAPAACARL AEASLLLVTL DPRLCHPLAR
251   PRRDAEPVLG GGPGGACRAR RLYVSFREVG WHRWVIAPRG FLANYCQGQC
301   ALPVALSGSG GPPALNHAVL RALMHAAAPG AADLPCCVPA RLSPISVLFF
351   DNSDNVVLRQ YEDMVVDECG CR
```

FIG. 38

(SEQ ID NO: 37)

Human Growth Differentiation Factor (GDF)-5 Precursor

```
1     MRLPKLLTFL LWYLAWLDLE FICTVLGAPD LGQRPQGSRP GLAKAEAKER
51    PPLARNVFRP GGHSYGGGAT NANARAKGGT GQTGGLTQPK KDEPKKLPPR
101   PGGPEPKPGH PPQTRQATAR TVTPKGQLPG GKAPPKAGSV PSSFLLKKAR
151   EPGPPREPKE PFRPPPITPH EYMLSLYRTL SDADRKGGNS SVKLEAGLAN
201   TITSFIDKGQ DDRGPVVRKQ RYVFDISALE KDGLLGAELR ILRKKPSDTA
251   KPAVPRSRRA AQLKLSSCPS GRQPAALLDV RSVPGLDGSG WEVFDIWKLF
301   RNFKNSAQLC LELEAWERGR TVDLRGLGFD RAARQVHEKA LFLVFGRTKK
351   RDLFFNEIKA RSGQDDKTVY EYLFSQRRKR RAPSATRQGK RPSKNLKARC
401   SRKALHVNFK DMGWDDWIIA PLEYEAFHCE GLCEFPLRSH LEPTNHAVIQ
451   TLMNSMDPES TPPTCCVPTR LSPISILFID SANNVVYKQY EDMVVESCGC
501   R
```

FIG. 39

(SEQ ID NO: 38)

Human Growth Differentiation Factor (GDF)-8
[Myostatin]

```
  1  MQKLQLCVYI YLFMLIVAGP VDLNENSEQK ENVEKEGLCN ACTWRQNTKS
 51  SRIEAIKIQI LSKLRLETAP NISKDVIRQL LPKAPPLREL IDQYDVQRDD
101  SSDGSLEDDD YHATTETIIT MPTESDFLMQ VDGKPKCCFF KFSSKIQYNK
151  VVKAQLWIYL RPVETPTTVF VQILRLIKPM KDGTRYTGIR SLKLDMNPGT
201  GIWQSIDVKT VLQNWLKQPE SNLGIEIKAL DENGHDLAVT FPGPGEDGLN
251  PFLEVKVTDT PKRSRRDFGL DCDEHSTESR CCRYPLTVDF EAFGWDWIIA
301  PKRYKANYCS GECEFVFLQK YPHTHLVHQA NPRGSAGPCC TPTKMSPINM
351  LYFNGKEQII YGKIPAMVVD RCGCS
```

FIG. 40

(SEQ ID NO: 39)

Human Growth Differentiation Factor (GDF)-9

```
  1  MARPNKFLLW FCCFAWLCFP ISLGSQASGG EAQIAASAEL ESGAMPWSLL
 51  QHIDERDRAG LLPALFKVLS VGRGGSPRLQ PDSRALHYMK KLYKTYATKE
101  GIPKSNRSHL YNTVRLFTPC TRHKQAPGDQ VTGILPSVEL LFNLDRITTV
151  EHLLKSVLLY NINNSVSFSS AVKCVCNLMI KEPKSSSRTL GRAPYSFTFN
201  SQFEFGKKHK WIQIDVTSLL QPLVASNKRS IHMSINFTCM KDQLEHPSAQ
251  NGLFNMTLVS PSLILYLNDT SAQAYHSWYS LHYKRRPSQG PDQERSLSAY
301  PVGEEAAEDG RSSHHRHRRG QETVSSELKK PLGPASFNLS EYFRQFLLPQ
351  NECELHDFRL SFSQLKWDNW IVAPHRYNPR YCKGDCPRAV GHRYGSPVHT
401  MVQNIIYEKL DSSVPRPSCV PAKYSPLSVL TIEPDGSIAY KEYEDMIATK
451  CTCR
```

FIG. 41

(SEQ ID NO: 40)

Human Artemin (GDNF)

```
  1   MPGLISARGQ PLLEVLPPQA HLGALFLPEA PLGLSAQPAL WPTLAALALL

 51   SSVAEASLGS APRSPAPREG PPPVLASPAG HLPGGRTARW CSGRARRPPP

101   QPSRPAPPPP APPSALPRGG RAARAGGPGS RARAAGARGC RLRSQLVPVR

151   ALGLGHRSDE LVRFRFCSGS CRRARSPHDL SLASLLGAGA LRPPPGSRPV

201   SQPCCRPTRY EAVSFMDVNS TWRTVDRLSA TACGCLG
```

FIG. 42

(SEQ ID NO: 41)

Human Glial Cell Derived Factor (GDNF)

[Persephin]

```
  1   MAVGKFLLGS LLLLSLQLGQ GWGPDARGVP VADGEFSSEQ VAKAGGTWLG

 51   THRPLARLRR ALSGPCQLWS LTLSVAELGL GYASEEKVIF RYCAGSCPRG

101   ARTQHGLALA RLQGQGRAHG GPCCRPTRYT DVAFLDDRHR WQRLPQLSAA

151   ACGCGG
```